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(54) Title: PROCESS FOR THE PREPARATION OF CEPHRADINE

(57) **Abstract:** The present invention describes a process for preparing cephadine, said process comprising reacting 7-aminode-sacetoxy cephalosporanic acid (7-ADCA) with D-dihydrophenylglycine in activated form (DH_a) in the presence of an enzyme in a reaction mixture to form cephadine, resulting in a conversion of 7-ADCA into cephadine of at least 70 %, wherein the concentration D-dihydrophenylglycine (DH) in the reaction mixture is below 2 wt. %, wherein the conversion of 7-ADCA into cephadine = (n_{CEP} / n_{7-ADCA}) *100%, wherein n_{CEP}=quantity of cephadine formed (in mole); and n_{7-ADCA}=total quantity of 7-ADCA added to reaction mixture (in mole). The invention also describes a process for the preparation of cephadine hydrate characterised in that the process comprises: - reacting 7-amino acid desacetoxy cephalosporanic acid (7-ADCA) with DH_a in the presence of an enzyme in a reaction mixture to form cephadine; - preparing an aqueous solution comprising at least part of the cephadine; and crystallising the cephadine from said aqueous solution. The invention further describes cephadine hydrate obtainable by a process according to invention. The invention also describes cephadine hydrate with an absorbance at 450 nm of below 0.050.